

ABSTRACT

The present invention relates to a semiconductor laser device having a structure capable of emitting laser beam having a small spread angle and further of narrowing the spectrum width of the laser beam.

5 The semiconductor laser device comprises a semiconductor laser array, a collimator lens, and an optical element having at least partially a reflecting function. The semiconductor laser array has plural active layers, and the active layers extend along a first direction on a predetermined plane and are arranged in parallel along a second direction perpendicular to the first direction on the predetermined plane.

10 The collimator lens collimates plural beams, respectively emitted from the active layers, in a third direction perpendicular to the predetermined plane. Then, the optical element has a reflecting portion for reflecting part of each beam reaching from the collimator lens and a transmitting portion for transmitting the rest of the reaching beam on a plane facing the collimator lens, so as to constitute an off-axis external resonator having a resonant optical path deviated from the optical axis of each beam emitted from the collimator lens and having a predetermined spread angle in the second direction together with the active layers.

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